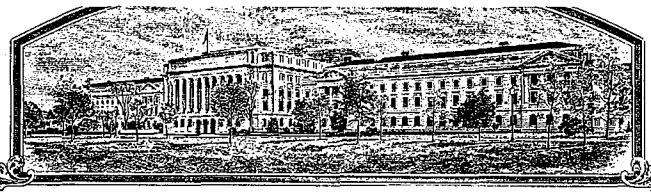
No. 9900370



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Golden Seed Company, L.L.C

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR CONDITIONING IT PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR ENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 S 2, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN, FIELD

'GSC1'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this thirteenth day of April, in the year two thousand and four.*

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions* 9900370 Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1 NAME OF OWNER	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME	3. VARIETY NAME
Golden Seed Company, L.L.C.		GSC1

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*	5. TELEPHONE *(Include area code)*	FOR OFFICIAL USE ONLY
27525 135th Avenue North Cordova, IL 61242	(309)654-2234	PVPO NUMBER 9900370
	6. FAX *(Include area code)* (309)654-2256	FILING DATE 7-22-99

7 IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*	8. IF INCORPORATED, GIVE STATE OF INCORPORATION	9. DATE OF INCORPORATION
Limited Liability Company	Illinois	12-94

10 NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

Ronald Walejko
Golden Seed Co, L.L.C.
28017 US Hwy 151 East
Platteville, WI 53818

FEES RECEIVED

FILING AND EXAMINATION FEES: $ 2450.00 DATE 7-22-99

CERTIFICATION FEE: $ 432.00 DATE 3/8/04

11. TELEPHONE *(Include area code)*	12. FAX *(Include area code)*	13. E_MAIL	14. CROP KIND *(Common Name)*
(608) 762-5104	(608) 762-5188	rwalejko@~~mhtc.net~~ goldenseedco.com	Corn(dent inbred line

15 GENUS AND SPECIES NAME OF CROP	16. FAMILY NAME *(Botanical)*	17. IS THE VARIETY A FIRST GENERATION HYBRID?
Zea mays L.	~~Maydeae~~ Gramineae	☐ YES ☒ NO

5 YRS 4/16/03

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

- a. ☒ Exhibit A. Origin and Breeding History of the Variety
- b. ☒ Exhibit B. Statement of Distinctness
- c. ☒ Exhibit C. Objective Description of Variety
- d. ☐ Exhibit D. Additional Description of the Variety *(Optional)*
- e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
- f. ☒ Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)
- g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act)*

☐ YES *(If "yes", answer items 20 and 21 below)* ☒ NO *(If "no," go to item 22)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☐ YES ☐ NO

21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?

☐ YES ☒ NO

IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?

☐ YES ☒ NO

IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER	SIGNATURE OF OWNER
Ronald Walejko	
NAME *(Please print or type)* Ronald Walejko	NAME *(Please print or type)*
CAPACITY OR TITLE Research Director	DATE 7/20/99
CAPACITY OR TITLE	DATE

9900370

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $2,45 ($300 filing fee and $2,150 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Varie Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amou of $300 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvp.htm

ITEM

18a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.

18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

19. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

22. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

23. *See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.*

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22. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

At the time of application, no seed was sold of variety GSC1 as a component part of any hybri

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23. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

At the time of application, no patent number was issued to GSC1.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center–East, Beltsville, MD 20705. Telephone: (301) 504-8089.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.

9900370

Exhibit A. Breeding History of GSC1

JHS 12/31/03

Winter 1985/86: The F1 hybrid of 329/CD3165 was made in Hawaii. 329 is a private line selected directly out of BS14 Synthetic from Iowa State University. This synthetic was made up of many B14 related lines. The actual lines that went into the synthetic are not known. CD3165 was a composite of several S1 lines that were selfed out of a Pioneer hybrid.* I bulked pollen from at least 100 of the earliest flowering plants and pollinated ten 329 ears. At harvest, I bulk harvested and bulk shelled the ten ears to make a new composite. * Pioneer hybrid P3165

Summer 1986: I random mated 250 plants from the 329/CS3165 composite. At harvest, 10 seeds from each of the 250 ears were bulked into a 2500 seed composite. No variant types or off-types were observed.

Summer 1987: The S0 population was grown at Platteville, Wisconsin. Approximately 300 of the earliest flowering plants were selfed. At harvest, 50 ears were selected based on stand-ability, stay green and ear types. No variant types or off-types were observed.

Summer 1988: The above-mentioned 50 ears were ear-to-rowed at Platteville, Wisconsin. Ten plants were selfed within each S1 line. At harvest, only 12 rows were kept based on earliness, ear type, stay-green and stand-ability. One ear from each of the 12 S1 lines was advanced. Again, no variant types or off-types were observed.

Summer 1989: Twelve S2 lines were grown, ear-to-row, at Platteville, Wisconsin. Eight plants within each S2 line were selfed. At harvest, selection was applied for earliness, stand-ability, ear type and stay-green. Six lines were advanced to S3. Again, no variant and off-types were observed.

Summer 1999: Six S3 lines were grown, ear-to-row, at Platteville, Wisconsin. Six plants were selfed per S3 line. At harvest, four S3 lines were advanced. Selection was applied for earliness, stand-ability, ear type and stay-green. One ear per line was advanced. No variant or off-types were observed.

Winter 1990/91: The four S4 lines were grown, ear-to-row, in Hawaii. Again, six plants were selfed per line and at harvest only one ear was advanced. No selection was applied in Hawaii.

Summer 1991: Four S5 lines were grown, ear-to-row, at Platteville, Wisconsin. Six plants per S5 line were selfed. At harvest, only three of the four lines were advanced. Selection was applied for earliness, ear-type, stand-ability and stay-green. No variant or off-types were observed this generation.

3

Exhibit A. Breeding History of GSC1

Summer 1992: Three S6 lines were advanced, ear-to-row, in the same method as the S5 generation. At harvest, within each row, one ear was advanced and the remaining five ears were bulked. No variant or off-types were observed in the three sub-selections.

Summer 1993: The selected S7 ear from each of the three S6 lines was planted at Platteville, WI. A four-row bulk of approximately 150 plants was grown for each of the three S7 selections. At harvest, one of the three was advanced based on uniformity. One hundred of the most phenotypically uniform plants were bulked and this became the initial breeder's seed bulk of GSC1. This selection was stable from the previous generation.

Summer 1994: Approximately a one-acre isolation was grown of GSC1. Selection for uniformity within this isolation was practiced at least 6 times during the season. No variant or off-types were observed this generation. At this point, GSC1 was observed to be stable and uniform for the past two generations.

Summer 1995: Approximately a five-acre foundation increase was grown at Pekin, Illinois. Approximately five off-types were developed out of this isolation during the entire season. This was the third generation that GSC1 was uniform and stable.

Summers 1996-98: GSC1 was test crossed to several male testers for hybrid performance evaluation.

Exhibit B. Statement of Distinctness of GSC1

GSC1's closest related variety would be the yellow dent variety of B73. GSC1 would differ from B73 by the following:

1. Its maturity is 1327.5 and 1361.5 heat units from emergence to 50% silk and 50% pollen, respectively. Meanwhile, B73's maturity is 1344.5 and 1379.5 heat units from emergence to 50% silk and 50% pollen, respectively.
2. Its plant height and ear height are 214.7 cm (+/- 8.59) and 54.1 cm (+/- 12.37), respectively, while B73's are 229.5 cm (+/- 6.17) and 94.6 cm (+/- 10.17), respectively. Other distinguishing plant characteristics are, GSC1 averages one tiller (+/- 0.79) and 2.1 ears (+/- 0.44) per stalk, while B73 has no tillers and 1.8 ears (0.37) per stalk.
3. Its leaf width and length of the ear node are 9.8 cm (+/- 0.82) and 78.9 cm (+/- 4.52), respectively, while B73 is 9.6 cm (+/- 0.61) and 86.1 cm (+/- 3.83), respectively. Also, GSC1 has a 20-degree leaf angle (+/- 3.80) while B73 has an 11-degree leaf angle (+/- 3.23) on the second leaf above the ear at anthesis.
4. Its leaf color is dark green, Munsell code 5GY5/8, while B73 is medium-green, Munsell code 5GY6/8. Its leaf sheath pubescence is moderate to heavy, rating a 7 and B73 is much less, rating a 3 on the scale.
5. Its tassel has 5 primary lateral branches (+/- 0.76) while B73 also has 5 lateral branches (+/- 0.87). The branch angle from the central spike for GSC3 is 7 degrees (+/- 3.35) and B73 is 4 degrees (+/- 1.66). The pollen shed for GSC1 and B73 are similar. GSC1's anther color is light green, Munsell code 2.5GY8/6, while B73 is salmon color, Munsell code 7.5YR8/4. GSC1's glume color is medium green, Munsell code 5GY7/6, while B73's glume color is medium green, Munsell code 5GY6/10.
6. A very distinguishing characteristic of GSC1 is its silk color. Three days after emergence, its silk color is purple, Munsell code 5RP3/10 (see Photo 3), and B73 is light green, Munsell code 2.5GY8/6. Also, GSC1's fresh husk color 25 days after mid-silk is dark green, Munsell code 5GY5/8, while B73 is medium green, Munsell code 5GY6/8. However, GSC1's dry husk color 65 days after mid-silk is pale yellow, Munsell code 5Y8/6 and B73 is light green, Munsell code 2.5GY8/6. GSC1 has a tight husk, rating an 8, while B73 is moderately loose, rating a 5.
7. Its ear length is 16.2 cm (+/- 0.85) while B73 is 12.8 (+/- 0.73). GSC1's ear diameter is 39.0 cm (+/-1.96) while B73 is 45.1 cm (+/- 1.27). GSC1's ear weight is 101.1 grams (+/- 14.81) while B73 is 103.9 grams (+/- 12.76). Also, GSC1 has 14 kernel rows (+/- 1.08) and B73 has 18 kernel rows (+/- 1.63). GSC1 shank length is 19.3 cm (+/- 3.28), while B73 is 6.7 cm (+/- 1.59).

Exhibit B. Statement of Distinctness of GSC1

8. Its dried kernel length is 10.0 mm (+/- 0.65) while B73 is 10.4 mm (+/- 0.81). GSC1's kernel width is 7.4 mm (+/- 0.65), while B73 is 5.5 mm (+/- 0.55). GSC1 has a higher of percent round kernels, 59.8% (+/- 8.55), as compared to B73, 40% (+/- 7.85).
9. Its cob diameter at mid-point is 23.3 mm (+/-1.11) while B73 is 27.6 mm (1.08).
10. GSC1's per se shelled grain yield is less than B73's. In a two replication, two-location test, GSC1 and B73 yields were 4210.8 and 4704.0 kg/hectare, respectively. The LSD (.05) was +/- 852.0 kg/ha.
11. GSC1 has excellent Gray Leaf Spot resistance, it rates a 9, while B73 rates a 3.
12. Finally, GSC1 has excellent stay-green at 65 days after anthesis at Platteville, Wisconsin. It rates an 8, while B73 rate a 4.
13. Probabilities associated with Student's Paired T-test for traits of GSC1, as compared to B73, are shown in Table 1.

Table 1. Probability from Student's Paired t-test.

TRAIT	P value
Plant Height	2.41024E-07
Ear Height	3.16878E-14
Number of Tillers	0.000110985
Ears per Stalk	0.016248326
Width of Ear Node Leaf	0.303294133
Length of Ear Node Leaf	5.89981E-05
Leaf Angle	4.34171E-09
Number of Primary Lateral Tassel Branches	0.013948313
Tassel Length	0.006917419
Ear Length	7.23176E-13
Ear Diameter at Midpoint	1.13697E-11
Ear Weight	0.513380068
Number of Kernel Rows	7.10169E-07
Kernel Length	0.130738895
Kernel Width	0.000383648
Kernel Thickness	0.795376983

Photo 1: GSC1 - Whole plant

Photo 2: GSC1 - Anthocyanin of Brace Roots

7

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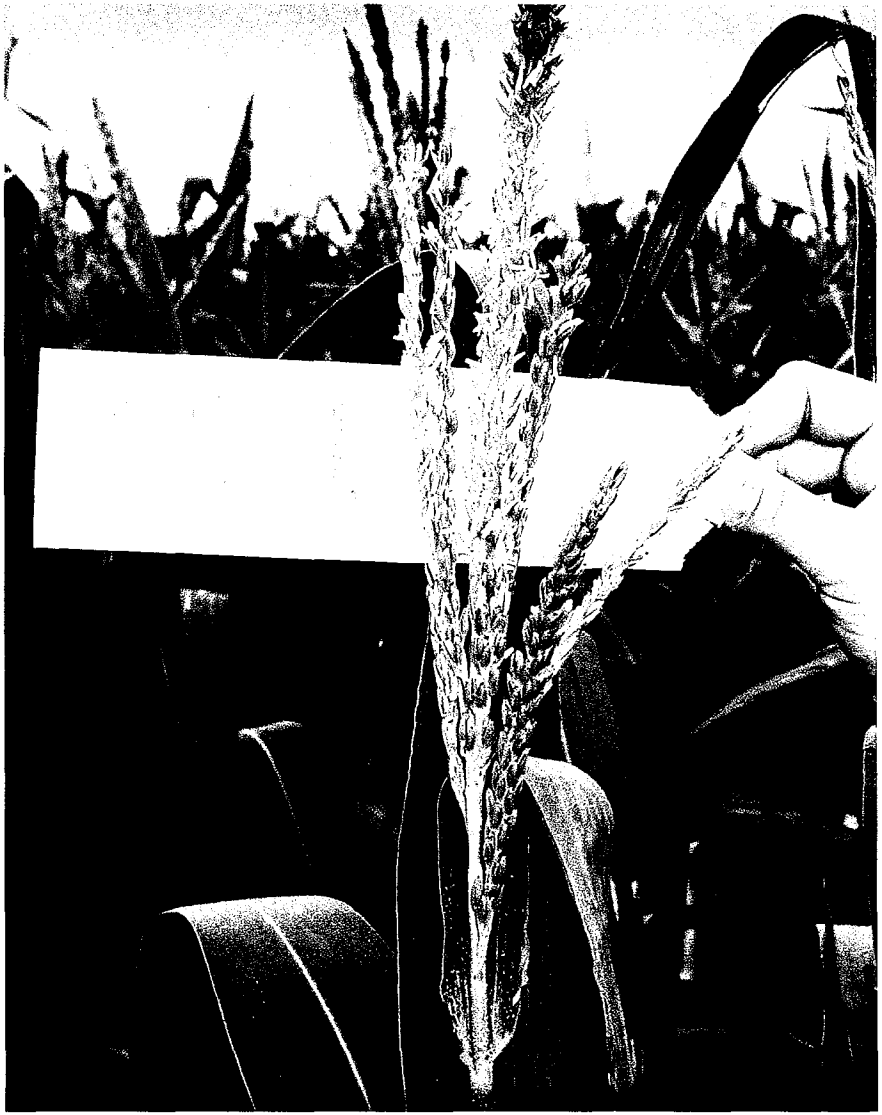

Photo 3: GSC1 - Tassel Lateral Branches, Anther and Glume color

Photo 4: GSC1 - Silk color

990037

FORM SD-470-28
(9-1-92)

EXHIBIT C
(Corn: Maize)

United States Department of Agriculture, Agricultural Marketing Service
Science Division, Plant Variety Protection Office
National Agricultural Library Building, Room 500
Beltsville, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
CORN (*Zea mays* L.)

Name of Applicant(s)	Variety Seed Source	Variety Name or Temporary Designation
Golden Seed Company, L.L.C.	9822	GSC1

Address (Street & No., or R.F.D. No., City, State, Zip Code and Country)	FOR OFFICIAL USE
27525 135th Avenue North, Cordova, IL 61242	PVPO Number 9900370

Place the appropriate number that describes the varietal characters typical of this inbred variety in the spaces below. Right justify whole numbers by adding leading zeroes if necessary. Completeness should be striven for to establish an adequate variety description. Traits designated by a '*' are considered necessary for an adequate variety description and must be completed.

COLOR CHOICES (Use in conjunction with Munsell color code to describe all color choices; describe #25 and #26 in Comments section):

01=Light Green	06=Pale Yellow	11=Pink	16=Pale Purple	21=Buff
02=Medium Green	07=Yellow	12=Light Red	17=Purple	22=Tan
03=Dark Green	08=Yellow-Orange	13=Cherry Red	18=Colorless	23=Brown
04=Very Dark Green	09=Salmon	14=Red	19=White	24=Bronze
05=Green-Yellow	10=Pink-Orange	15=Red & White	20=White Capped	25=Variegated (Describe)
				26=Other (Describe)

STANDARD INBRED CHOICES (Use the most similar (in background and maturity) of these to make comparisons based on grow-out trial data):

Yellow Dent Families:		Yellow Dent (Unrelated):	Sweet Corn:
Family	Members	Co109, ND246,	C13, Iowa5125, P39, 2132
B14	CM105, A632, B64, B68	Oh7, T232	
B37	B37, B76, H84	W117, W153R	Popcorn:
B73	N192, A679, B73, NC268	W182BN	SG1533, 4722, HP301, HP7211
C103	Mo17, Va102, Va35, A682		
Oh43	A619, MS71, H99, Va26	White Dent:	Pipecorn:
WF9	W64A, A554, A654, Pa91	CI66, H105, Ky228	Mo15W, Mo15W, Mo24W

1. TYPE: (describe intermediate types in Comments section) * 2 1=Sweet 2=Dent 3=Flint 4=Flour 5=Pop 6=Ornamental 7=Pipecorn	Standard Inbred Name B73 2
2. REGION WHERE DEVELOPED IN THE U.S.A.: * 2 1=Northwest 2=Northcentral 3=Northeast 4=Southeast 5=Southcentral 6=Southwest 7=Other _____	Standard Seed Source Iowa State Univ. 2

3. MATURITY (In Region Best Adaptability: show Heat Unit formula in "Comments" section):

	DAYS	HEAT UNITS		DAYS	HEAT UNITS
*	79	1327.5	From emergence to 50% of plants in silk	80	1345.5
*	81	1361.5	From emergence to 50% of plants in pollen	82	1379.5
	2	51.5	From 10% to 90% pollen shed	3	76.0
(*)			From 50% silk to optimum edible quality		
	59	1040.5	From 50% silk to harvest at 25% moisture	62	1102.0

4. PLANT:	Standard Deviation	Sample Size		Standard Deviation	Sample Size
* 214.7 cm Plant Height (to tassel tip)	8.59	25	2295	6.17	25
* 541 cm Ear Height (to base of top ear node)	12.37	25	946	10.17	25
173 cm Length of Top Ear Internode	1.71	25	139	1.37	25
1.0 Average Number of Tillers	0.79	25	00	0.00	25
* 2.1 Average Number of Ears per Stalk	0.44	25	1.8	0.37	25
4 Anthocyanin of Brace Roots: 1=Absent 2=Faint 3=Moderate 4=Dark			3		

9

Application Variety Data			Standard Inbred Data		
5. LEAF:	Standard Deviation	Sample Size		Standard Deviation	Sample Size
* 9.8 cm Width of Ear Node Leaf	0.82	25	9.6	0.61	25
* 78.9 cm Length of Ear Node Leaf	4.52	25	86.1	3.83	25
* 7 Number of leaves above top ear	0.58	25	6	0.65	25
20 degrees Leaf Angle (measure from 2nd leaf above ear at anthesis to stalk above leaf)	3.80	25	11	3.23	25
* 03 Leaf Color (Munsell code 5 GY5/8)			02 (Munsell code 5GY6/8)		
7 Leaf Sheath Pubescence (Rate on scale from 1=none to 9=like peach fuzz)			3		
5 Marginal Waves (Rate on scale from 1=none to 9=many)			5		
2 Longitudinal Creases (Rate on scale from 1=none to 9=many)			1		
6. TASSEL:	Standard Deviation	Sample Size		Standard Deviation	Sample Size
* 5 Number of Primary Lateral Branches	0.76	25	5	0.87	25
7 Branch Angle from Central Spike	3.35	25	4	1.66	25
* 37.9 cm Tassel Length (from top leaf collar to tassel tip)	2.93	25	39.9	1.87	25
8 Pollen Shed (Rate on scale from 0=male sterile to 9=heavy shed)			8		
01 Anther Color (Munsell code 2.5GY8/6)			09 (Munsell code 7.5YR8/4)		
02 Glume Color (Munsell code 5GY7/6)			02 (Munsell code 5GY6/10)		
1 Bar Glumes (Glume Bands): 1=Absent 2=Present			1		
7a. EAR (Unhusked Data):					
* 17 Silk Color (3 days after emergence) (Munsell code 5RP3/10)			01 (Munsell code 2.5GY8/6)		
03 Fresh Husk Color (25 days after 50% silking) (Munsell code 5GY5/8)			02 (Munsell code 5GY6/8)		
06 Dry Husk Color (65 days after 50% Silking) (Munsell code 5Y8/6)			01 (Munsell code 2.5GY8/6)		
* 1 Position of Ear at Dry Husk Stage: 1=Upright 2=Horizontal 3=Pendent			1		
8 Husk Tightness (Rate on scale from 1=very loose to 9=very tight)			5		
3 Husk Extension (at harvest): 1=Short (ears exposed) 2=Medium (<8 cm) 3=Long (8-10 cm beyond ear tip) 4=Very Long (>10 cm)			3		
7b. EAR (Husked Ear Data):	Standard Deviation	Sample Size		Standard Deviation	Sample Size
* 162 cm Ear Length	0.85	25	128	0.73	25
* 390 mm Ear Diameter at mid-point	1.96	25	451	1.27	25
1011 gm Ear Weight	14.81	25	1039	12.76	25
* 14 Number of Kernel Rows	1.08	25	18	1.63	25
2 Kernel Rows: 1=Indistinct 2=Distinct			2		
1 Row Alignment: 1=Straight 2=Slightly Curved 3=Spiral			1		
193 cm Shank Length	3.28	25	6.7	1.59	25
1 Ear Taper: 1=Slight 2=Average 3=Extreme			2		

Application Variety Data	Standard Inbred Data

Note: Use chart on first page to choose color codes for color traits.

Application Variety Data	Page 3		Standard Inbred Data		
8. KERNEL (Dried):	Standard Deviation	Sample Size		Standard Deviation	Sample Size
10.0 mm Kernel Length	0.65	25	10.4	0.81	25
7.4 mm Kernel Width	0.65	25	5.5	0.55	25
4.0 mm Kernel Thickness	1.10	25	4.0	1.02	25
59.8 % Round Kernels (Shape Grade)	8.55	25	40.0	7.85	25
1 Aleurone Color Pattern: 1=Homozygous 2=Segregating			1		
(*) 18 Aleurone Color (Munsell code colorless)			18 (Munsell code colorless)		
* 07 Hard Endosperm Color (Munsell code 2.5Y8/10)			07 (Munsell code 2.5Y8/10)		
* 3 Endosperm Type: 1=Sweet (su1) 2=Extra Sweet (sh2) 3=Normal Starch 4=High Amylose Starch 5=Waxy Starch 6=High Protein 7=High Lysine 8=Super Sweet (se) 9=High Oil 10=Other ___			3		
28.5 gm Weight per 100 Kernels (unsized sample)	0.45	25	24.2	0.38	25
9. COB:	Standard Deviation	Sample Size		Standard Devaition	Sample Size
* 23.3 mm Cob Diameter at mid-point	1.11	25	27.6	1.08	25
09 Cob Color (Munsell code 10R4/8)			09 (Munsell code 10R5/8)		

10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant): leave blank if not tested; leave Race or Strain Options blank if polygenic):

Application Variety Data		Standard Inbred Data
A. Leaf Blights, Wilts, and Local Infection Diseases		
Anthracnose Leaf Blight (*Colletotrichum graminicola*)	___	___
Common Rust (*Puccinia sorghi*)	___	___
Common Smut (*Ustilago maydis*)	___	___
Eyespot (*Kabatiella zeae*)	___	___
Goss's Wilt (*Clavibacter michiganense* spp. *nebraskense*)	___	___
Gray Leaf Spot (*Cercospora zeae-maydis*)	9	3
Helminthosporium Leaf Spot (*Bipolaris zeicola*) Race ___	___	___ Race ___
Northern Leaf Blight (*Exserohilum turcicum*) Race ___	___	___ Race ___
Southern Leaf Blight (*Bipolaris maydis*) Race ___	___	___ Race ___
Southern Rust (*Puccinia polysora*)	___	___
Stewart's Wilt (*Erwinia stewartii*)	___	___
Other (Specify) ___	___	___
B. Systemic Diseases		
Corn Lethal Necrosis (MCMV and MDMV)	___	___
Head Smut (*Sphacelotheca reiliana*)	___	___
Maize Chlorotic Dwarf Virus (MCDV)	___	___
Maize Chlorotic Mottle Virus (MCMV)	___	___
Maize Dwarf Mosaic Virus (MDMV) Strain ___	___	___ Strain ___
Sorghum Downy Mildew of Corn (*Peronosclerospora sorghi*)	___	___
Other (Specify) ___	___	___
C. Stalk Rots		
Anthracnose Stalk Rot (*Colletotrichum graminicola*)	___	___
Diplodia Stalk Rot (*Stenocarpella maydis*)	___	___
Fusarium Stalk Rot (*Fusarium moniliforme*)	___	___
Gibberella Stalk Rot (*Gibberella zeae*)	___	___
Other (Specify) ___	___	___
D. Ear and Kernel Rots		
Aspergillus Ear and Kernel Rot (*Aspergillus flavus*)	___	___
Diplodia Ear Rot (*Stenocarpella maydis*)	___	___
Fusarium Ear and Kernel Rot (*Fusarium moniliforme*)	___	___
Gibberella Ear Rot (*Gibberella zeae*)	___	___
Other (Specify) ___	___	___
Application Variety Data		Standard Inbred Data

Note: Use chart on first page to choose color codes for color traits.

Application Variety Data	Page 4		Standard Inbred Data		
11. INSECT RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested):					
__ Banks Grass Mite (*Oligonychus pratensis*)	Standard Deviation	Sample Size	__	Standard Deviation	Sample Size
Corn Earworm (*Helicoverpa zea*)					
__ Leaf-Feeding			__		
Silk Feeding :					
___.__ mg larval wt.	____	____	___.__	____	____
__ Ear Damage			__		
__ Corn Leaf Aphid (*Rhopalosiphum maidis*)			__		
__ Corn Sap Beetle (*Carpophilus dimidiatus*)			__		
__ European Corn Borer (*Ostrinia nubilalis*)					
5 1st Generation (Typically Whorl Leaf Feeding)			2		
6 2nd Generation (Typically Leaf Sheath-Collar Feeding)			3		
Stalk Tunneling :					
___.__ cm tunneled/plant	____	____	___.__	____	____
__ Fall Armyworm (*Spodoptera frugiperda*)			__		
Leaf-Feeding			__		
__ Silk-Feeding :					
___.__ mg larval wt.	____	____	___.__	____	____
__ Maize Weevil (*Sitophilus zeamaize*)			__		
__ Northern Rootworm (*Diabrotica barberi*)			__		
__ Southern Rootworm (*Diabrotica undecimpunctata*)			__		
__ Southwestern Corn Borer (*Diatraea grandiosella*)					
Leaf Feeding			__		
Stalk Tunneling :					
___.__ cm tunneled/plant	____	____	___.__	____	____
__ Two-spotted Spider Mite (*Tetranychus urticae*)			__		
__ Western Rootworm (*Diabrotica virgifera virgifera*)			__		
__ Other (Specify) _____			__ _____		
12. AGRONOMIC TRAITS:					
8 Stay Green (at 65 days after anthesis) (Rate on a scale from 1=worst to 9=excellent.)			4		
0.0 % Dropped Ears (at 65 days after anthesis)			0.2		
0.0 % Pre-anthesis Brittle Snapping			0.0		
0.5 % Pre-anthesis Root Lodging			2.0		
1.0 % Post-anthesis Root Lodging (at 65 days after anthesis)			0.0		
45.8 Kg/ha Yield of Inbred Per Se (at 12-13% grain moisture)			47.4		

13. MOLECULAR MARKERS: (0=data unavailable; 1=data available but not supplied; 2=data supplied)

0 Isozymes 0 RFLP's 0 RAPD's

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U.S. Department of Agriculture. 1936, 1937. Yearbook.

COMMENTS (eg. state how heat units were calculated, standard inbred seed source, and/or where data was collected. Continue in Exhibit D):

Addendum to Exhibit C for Corn Inbred Variety GSC1

The data collected for the objective description of the variety GSC1 was collected during the summer of 1998 at Platteville, Wisconsin. There was 26.79 inches of rainfall during the growing season. This was slightly above the 30-year average. Heat units during the growing season were 2712, which was about 100 units above the 30-year average. No supplemental irrigation was used on these plots. Fertility is kept at a high level. With high fertility and above average heat units, plant top-growth was larger than normal. The variety B73 is a full season variety at this location.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Golden Seed Company, L.L.C.		GSC1

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(include area code)*	6. FAX *(include area code)*
27525 135th Avenue North Cordova, IL 61242	(309) 654-2234	(309) 654-2256

7. PVPO NUMBER 9900370

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [X] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? [X] YES [ ] NO
If no, give name of country

10. Is the applicant the original owner? [X] YES [ ] NO *If no, please answer one of the following:*

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

[ ] YES [ ] NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

[ ] YES [ ] NO If no, give name of country

11. Additional explanation on ownership *(if needed, use reverse for extra space)*:

GSC1 was developed by Ronald Walejko. The breeding work was conducted at Platteville, WI. The entire development of this line was conducted by Ronald Walejko while he was employed by Golden Seed Company, L.L.C. Golden Seed Company has 100% ownership of this line. Ronald Walejko has no rights of ownership to GSC1. As originator of this line, Ronald Walejko has the authority to apply for a plant variety protection certificate for GSC1.

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. **If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.**

2. **If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.**

3. **If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.**

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to compete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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